AUSTRALIAN TURFMAN'S IDEAS ON HORSE HEREDITY GIVEN DEATH BLOW

SCIENCE EXPLODES **BREEDING THEORIES**

Bruce Lowe Formula and English Stud Book Rule Shattered by Microscope.

SECRET OF GERMAN PLASM

Experiments and Deductions of Importance to Students

of Species.

askance at the Bruce Lowe of speed inheritance, which is away in a racing pedigree the immediate parents of : It has remained for science microscope, however, to dem turfman's discredited conclusion

Out at the Eugenics Record Office in ld Spring Harbor, Long Island, Prof. es B. Davenport, Dr. H. H. Laughother experts in heredity have making a special study of the rate limination of mongrel blood in the less of "grading up" by the use of bred sires in imporving the live of the country. And so success-have they pried into the secrets lature that as to many breeds of hals they are now able to state the trumber of generations necessary ompletely eliminate all trace of the root female or foundation stock, there here blood is "pure" or "impure." Theoretically there would always be action of mongrel blood in each integral of a herd or group produced by a significant of their like used to make a practice.

action of mongrel blood in each inlual of a herd or group produced by
pure sire method, regardless of the
ber of generations to which the
ess might have been carried," Dr.
chilin said in a recent paper read
re the Society for Experimental
gy and Medicine. "As a matter
ractice, however, it is known that
a few generations the progeny of
pure sire method are admitted on
iterms into the variety or species
e pure sire, and with no apparent
y to the purity of the paternal
In man, as in other animals, the
plasm is not indefinitely dilutable
egregates into chromosomes, which
eir entirety either do or do not
from a given ancestor to the off-

than a century, while the Eugenics Record Office, situated on this Jones family estate, was built by Mrs. E. H. Harriman, to whose interest in horses Orange county owes its present prom-inence in harness racing.

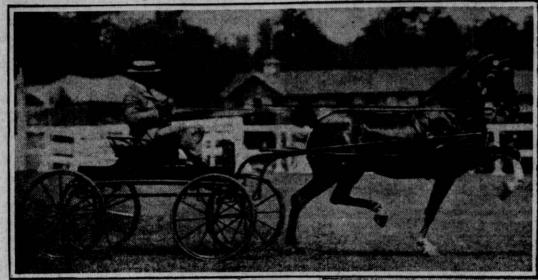
The scientific discoveries of Professor Davenport and his associates in the biological laboratory and the Eugenics Record Office assume practical importance in horse breeding when it is remembered that the English Jocky Club, which controls the English stud book for thoroughbred racehorses, made a ruling not many years ago excluding from registration therein all horses whose ancestry is not traceable in every line to animals registered in the original volume with perhaus twenty or

ruling "hot many years ago excluding from registration therein all horses whose ancestry is not traceable in every line to animals registered in the original volume with perhaps twenty or more uncontaminated crosses. This rule has operated to throw out many of our great American racing families tracing to Lexington and other "short bred" sires, and would exclude at least three winners of the Epsom Derby as well as numerous other horses of the highest class. It has been the subject of scathing criticisms from nearly every country where racehorses are bred and raised, and has even resulted in a so-called "half bred stud book." In the light of recent research, however, the premises on which the English rule was based are faise, and most of the horses in the book for half breds are of as pure heredity as those in Weatherby's, which go back twenty generations in every direction without a break.

American horsemen have reason to be particularly pleased with the findings of the biologists. Owing to the fact that comparatively few racehorses here in early days could be traced back in every line to imported English stock, it became necessary to constitute a thoroughbred horse. Acting solely on observation and experience in racing, it was decided that any horse having five such crosses ought to be deemed thoroughbred himself, and this long observed custom was recognized in the compliation of all our American stud books. Now that the exact number of crosses necessary to constitute a thoroughbred of monogrei or foreign blood can be ascertained with scientific precision, the Jockey Club, as custodians of the American stud book, might strengthen the foundation on which it rests and perhaps pave the way for repeal of the exploded English rule by appropriating the necessary sum to defray expenses in working out the problem at Cold expring Harbot.

A. A. U. Games To-day.

One of the Notable Novice Horses of 1922.



Ovation was imported from England last spring by Mrs. Loula Long Combs. He won the novice class

Prince Loree Incident Brings Up Old Memories

placed Princess Stawah first in the heat. Mike McDewitt and the crowd thought Prince Loree won, were all of them horsemen qualified by experience to place the trotters at the finish, and if they made a mistake they alone were competent to correct it under the rules of harness racing. For the local association to go over their heads and declare bets off was in effect to substitute mob rule for law and order, besides being an insult to the horsemen they had

Chromosomer Control.

Dr. Laughlin's explanation of the experiments and mathematical calculations on which these statements are based is extremely technical in terminology and otherwise. It would be difficult, if not impossible, for any one without more than a smattering of biological lore to follow it, but the gist of it is that the number of crosses necessary to climinate the last trace of mongrei blood by the use of successive pure bred sires depends almost wholly upon the number of chromosomes in the germ cells of the species to be improved. Chromosomes are the carriers of the number of chromosomes is that is, its continuation then ceases to be practically effective, and the chance that the progeny will possess absolutely no chromosomes descended from the original mongrei lam is as a thousand to one.

Unfortunately the number of chromosomes descended from the original mongrei lam is as a thousand to one.

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Unfortunately the number of chromosomes of \$200 or \$300, and for financial reasons alone has been neglected at the biological laboratory in Cold Spring Harbor. This is the more to be regretted because the laboratory was founded by John D. Jones, whose family was conspicuously identified with trotting and racing on Long island for more than a century, while the Eugenics of marked with Balmont and tracing and racing on Long island for more than a century, while the Eugenics of marked with Balmont and tracing and racing on Long island for more than a century, while the Eugenics of marked with Balmont and racing and racing on Long island for more than a century, while the Eugenics of marked with Balmont and with Balmont an bred mare produced Nora Temple, 2:27%, when mated with Belmont, and her daughter Tempting, 2:18½, by St. Bel, 2:24½, produced the dam of Judson Girl and Peter Earl. Peter's present record was made as a two-year-old. In his last race last season he trotted the last half in 1:04.

but one since 1910.

Ensign Tige, a three-year-old bay colt by Lee Axworthy, 1:58¼, out of Hill-brooke Queen by Wilask, 2:11¼, earned a record of 2:10 at Lexington, Ky. on Wednesday. He is the fifth trotter of his age by the dead champion to enter the 2:10 list. The others are Miss Willoughby, 2:05: Kernel, 2:05½; Lee Tide, 2:07¼, and Emilee, 2:10. This is a wonderful showing from two crops of foals, and it emphasizes the fact that one of the greatest of trotters died when Lee Axworthy was suddenly cut off at the outset of his stud career. Ensign Tige made a record of 2:12¾ as a two-year-old.

James W. Daly of Mount Kisco bred and developed many years ago.

The inspiring spectacle of a professional horseman who is past 71 years old driving a trotter in 2:03¼ in a winning race against Cox, Murphy, McDonald and others of the best trainers in the country was one of the finest features of the Kalamazoo meeting. Despite his three score years and eleven Ed Geers is still a match for any of the younger men, and his success this year to which a driver of trotting horses may remain active and efficient.

Fruzzetti Beats Clinton.

Brockron. Mass., July 22.—Jimmy Fruzzetti of this city was awarded the dealers over Johnson Clinton.

Harness Racing Dates of the Grand Circuit

		July 24-28
		July 31-Aug. 4
		Aug. 7-11
Panadeiphi	ie N V	Aug. 14-18
Boston, Ms	88	Aug. 28-Sept. 1
Hartford. (oon	Sept. 4-9
Syrncuse, 2	Y	Sept. 11-15
Levington	Vino	Sept. 18-30
Lexingion,	************	

free-for-all pacing class, went lame

winning the first heat that the mare the shipment promptly. The experiment was so successful that Earl Pitman cara Worthy, 2:03%, and Bill Sharen, cagaged the van to take a trotter from New York to Monroe. This was the Murphy stable, made their first starts this season with conspiciously disappointing results, neither of them having been a factor in his race. Murphy has not yet uncovered all his colt trotters, but the Matron Stakes at Toledo next week will perhaps bring out one of his best three-year-olds.

The Glenworth Farms of Burgin, Ky., are supplying some beautiful saddle horses to buyers from New York and yieinity.

his last race last season he trotted the last half in 1:94.

After being distanced in his race at cleveland the three-year-old trotter Guy Hall, by Guy Axworthy, 2:95%, out of Bessie Hall, by Walnut Hall, 2:95%, was the season and is owned by Walnut Hall, 2:95%, worked a mile in 2:95%, ilteraily running away on a trot. The headstrong seeding is in the stable of William Hodes on and is owned by Walter L. Johnson of Endicott, N. Y., who purchased him is stafil for \$6,000 after he made a record of 2:10% as a two-year-old. Foaled at Walnut Hall Farm in Kentucky, he was oatsfogued to be sold as a record of 2:10% as a was next heard of in the hands of F. L. Burke, who sold him to Mr. Johnson. He is entered in the Kentucky Puturity at Lexington and in the race for three-year-old-pacer Brook Volo, by Peter Volo, 2:02, out of A. H. Cosden's noted trotting mare Zarrine, 2:07%, which is only a second slower than the best time on record for two-year-old-pacer Brook Volo, by Peter Volo, 2:02, out of A. H. Cosden's noted trotting mare Zarrine, 2:07%, which is only a second slower than the best time on record for two-year-old pacer Thomas W. Murphy has marked in 2:00 or better. Frank Bogash Jr. 1:55%, was his first, and after him came Directum L. 1:55%, which is only a second slower than the best time on record for two-year-old pacer Thomas W. Murphy has marked in 2:00 or better. Frank Bogash Jr. 1:55%, was his first, and after him came Directum L. 1:55%, which is only a second slower than the best time on record for two-year-old pacers.

Margaret Dillon, 2:00, winnen of the season's fastest harness race at Toledo, is the fifth pacer Thomas W. Murphy has marked in 2:00 or better. Frank Bogash Jr. 1:55%, which is only a second slower than the best time on record for two-year-old pacers.

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To Debate Relative Merits of Horses and Motor Trucks

Team Owners to Hear Both Sides of Question.

seasoned, or second-hand, workers from local owners, on the other hand, have failen away below the average this year. Market experts say this means that truckmen, expressmen and other users of wagon horses are keeping their old ones and buying green ones as they need more equipment for their work.

George Watson has purchased for importation the English saddle mare Lighthouse that won the reserve champlonship at London's International Horse Show a few weeks ago. The enterprising New York dealer may show her at Newport on August 28-36.

William H. Strang transported his first horse by motor van ten years ago. It was a trotter of his own that he wanted to move from the Parkway track in Brooklyn to the Mineola fair grounds. Taking a wild chance he put it in one of his Packard moving vans because the railroad could not handle

H. Kauffman & Sons, 193 Division street, report a steady demand for English and American saddles, bridles and riding equipment. They are among the largest dealers in the trade.

the preliminary season in football next year by starting practice a couple of weeks later than usual in September, because of the fact that this system has already been in effect at Williams College Our several years.

Tuckanoe, N. 1., It will be in the mall by August.

Winnipeg Oarsmen Lead

Duluth for Lipton Trophy

A. A. U. Games To-day.

Final arrangements have been made for the annual games of the Stationary Engineers, which are to take place at Caltie Park, Long Island, this afternoon. The program will consist of four sanctioned A. A. U. track events and tree for the contest of the stationary Engineers, which are to take place at Caltie Park, Long Island, this afternoon. The program will consist of four sanctioned A. A. U. track events and tree for the stationary to be supposed and the program will consist of four sanctioned A. A. U. track events and tree for the stationary as the result of yesterdays reached out until the middle out until the middle out until the middle of the stationary as the result of yesterdays reached out until the middle out of the struggle for the Sir Thomas Lipton Fruzzetti of this city was awarded the decision over Johnny Clinton of Boston, lightwelfsh champion of New England.

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BROCKTON. Mass.** July

Dogs Do Not Need Much Exercise in Hot Weather 'Herald's' Expert Says It and LIGHTHOUSE MISSES

Heavy Feed Tend to Give

it in one of his Packard moving vans because the railroad could not handle the shipment promptly. The experiment was so successful that Earl Pitman engaged the van to take a trotter from New York to Monroe. This was the beginning of a business which now runs above 10,000 horses a year and keeps a fleet of ten specially built horse vans busy for Mr. Strang.

The Glenworth Farms of Burgin, Ky, are supplying some beautiful saddle horses to buyers from New York and vicinity.

The Glenworth Farms of Burgin, Ky, are supplying some beautiful saddle horses to buyers from New York and vicinity.

Summer rates for saddle horses are making Durland's Riding Academy a popular place for the stay-at-home contingent this season. Nearly difty school horses are kept busy.

Seeptre, one of the most famous mares in the history of the British turf, has been sold by Lord Glanely to South America. Her new owner, a Brazilian breeder, believes that she will prove fruitful again in the new climate and changed conditions. Sceptre is now? 3 years old. She has been barren for several seasons.

M. B. Newcomb is having a busy summer season at his Seventh avenue sales stables, near the entrance to the Central Park bridle paths.

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haps going to come back.

The Fairfield County Kennel Club at the request of the A. K. C. has changed its name to the Fairfield Kennel Club of Noroton. The Kennel Club thought the use of the word "county" implied too wide a territory and that the club should be more centralized. The club is pressing preparations for its annual show, to be held on Labor Day. This year it will be held on the grounds of the Oxford Country Club, formerly the home of John McCormack.

As in former years, the club plans a popular breed show with liberal cash prizes throughout. The judges are being selected and the premium list will shortly be in the mails. Entries will close on August 21, with extended entries permissible until August 25. The club has taken an office in Room 203; 1451 Broadway.

the largest dealers in the trade.

Beautiful country roads, free from invading automobiles, are attracting many equestrians to the Plainfield Riding Academy these days. Well trained saddle horses are always ready for the visitors.

W. H. Maddison of Gienville, Conn., is supplying a lot of fine saddle horses to buyers who come across the Sound from Long Island. Mr. Maddison's type of horse has become exceedingly popular there, winning repeatedly at Piping Rock and other shows.

Newport Show.

The premium list for the Newport, R. I., show is ready for the malis and prospects are that the Rhode Island resort will have one of the best shows in years. There are many cash prizes and a number of good cups which should attract a big entry. The show is somewhat handicapped by the poor facilities for reaching Newport. Dut is counting on the sood roads to bring many dogs by motor. Charles O'Connor of 54 Central Square, Lynn. Massachusetts, is the manager and can furnish particulars about the show.

williams Football Squad to Begin Work in September WILLIAMSTOWN, July 22.—Considerable interest is expressed here in regard to the plan under consideration by Harvard, Yale and Princeton for curtailing the preliminary season in football next year by starting practice a couple of weeks later than usual in September,

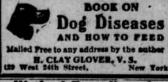
THE CHAMPIONSHIP

American Woman Wins Reserve at London International With Saddle Horse.

Some Apparent Exceptions to a Singular Color Rule

Can anybody pull out bay horse with white marks on its fore legs and no white behind? This interesting question, recently asked by Miss Marguerite F. Baylise in an important article in The SZNDAY HERALD on the law of coat color in horses, has not yet been answered in the affirmative, though one man has turned up who says he remembers seeing such a horse. And Harriet H. House writes from Providence that since read-

NEWPORT DOG SHOW NEWPORT, R. I. SATURDAY, AUGUST 19 Entries close Thursday, August 3. Over \$1,000 in special prize money. Easily coassible from New York by hoat. Premium lats at the "Herald Office," or write CHAS. E. O'CONNOR, Supt., care of Old Trusty Dog Food Co., 12 South Market St., Boston, Mass.



Watland Farm Kennels. ALL BREEDS BOARDED AND CONDITIONED SPORTING DOOS, TERRED AND TOY DOOS FOR SALE: INSPECTION INVITED. FRANK ALD: INSPECTION OF THE STATE OF THE STATE

ALSATIAN WOLF DOG PUPS, MALE, PEDIGREED. Sire and Dam from England. MISS PRIDHAM, KELOWNA, B. C.

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300 HEAD OF HORSES At Auction To-morrow

MONDAY, JULY 24th, AT 10 O'CLOCK Complete Business Outfits, Trucks, Carriages, Harness, &c. TO THE HIGHEST BIDDERS WITHOUT RESERVE. Special—Consignment, 12 Noon—Special
30—Seasoned Express Horses—30
This is an excellent consignment of seasoned workers right off hard
work and ready for immediate service.

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Carload of Exceptional Illinois Work Horses
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Our Written Guarantee Accompanies Every Warranted Horse and Permits of Trial Up to Noon Wednesday.

Entire Purchase Price Is Refunded If Animal Proves Other Than as Represented.

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100 Horses consigned by various Hudson and Essex County owners. You are sure to find the kind of horse you are looking for in the E. C. BURDICK, Auctioneer.

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Polo Ponies and
Children's Ponies.
Some Show Prospects.
All My Horses Are Thoroughly
Broken and Acclimated.
TRIAL ALLOWED,
Satisfaction Guaranteed.

Saddles : Bridles

We are now showing probably the

ROCHESTER September 4th to 9th

History will be made this year in the high jump at Rochester. \$50.00 gold piece to every rider clearing 6 feet 8 inches

Special premiums for four-inhands. Rochester will revive interest in the sport of kings.

Complete classification for saddle horses, hunters, ponies. Several stake events. If you have not received your

prize list drop a card to the Secre-As usual, no charge for stabling

Entries close August 24.

Edgar F. Edwards Secretary.

Norman Van Voorhis Chairman.

The Fifth Annual Monmouth County Colt Show AUGUST 26th WINGANEEK FARM

Shrewsbury, N. J. For Prize Lists and all information Address
W. S. BLITZ, Asst. Sec., 35 Nasanu St., New York City. Telephone Rector 6417.

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Open for Riding Until 8 o'Clock

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and Bridles in the country
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150 U. S. Sheets at \$2.50.
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FOR SALE—Gray gelding, age 8 years, height about 15.1, up to 200 lbs. Guaranteed sound and fearless of all road sights, been used by ladies and children; both cross and side saddle. Very attractive horse in har-ness. Reason for sellins, giving up riding. Further particulars, apply to F. W. SEVER-ANCE, Lectadale, or Manager Monarch Sta-bles, Sewickley Heights, Pa.

POLO pony or Galloway race pony for sale; bay gelding, 8 years old, sound; this pony plays a good game and should win races; very gentle. Apply M. J. HARTY, Terras Riding Academy, Caton pl. and E. 8th st., Breoklyn. Windsor 4646.

A BEAUTIFUL, well bred saddle mare, suitable for lady; bay, 15.3; fearless, kind; very spirited; no dealers; reasonable price. Owner, Room 1129, 82 Broa Iway.

BREWSTER runabout, family surrey, station carriage, gent's English saddle, briefe harness quarter value. Private stable, 148 East 29th.

HANDSOME polo pony, weight carrier (win-HANDSOME, gentle pony; basket governme cart, pony sleigh, harness, anddle, bridie, great merities. Private stable, 148 E. 350, \$150 UIVS Shetland pony, care, harness, also saddle, bridle. 441 E. 74th st.